

LAND APPLICATION SITE
JOHN W HAWTHORNE SITE
LUJWH 1-3
LUNENBURG COUNTY

RECYC SYSTEMS, INC

PART D-VI BIOSOLIDS APPLICATION AGREEMENT

This biosolids application agreement is made on 5-27-09 between John W Hawthorne, referred to here as "landowner", and Recyc Systems, Inc, referred to here as the "Permittee".

Landowner is the owner of agricultural land shown on the map attached as Exhibit A and designated there as LUSWH 1-3 ("landowner's land"). Permittee agrees to apply and landowner agrees to comply with certain permit requirements following application of biosolids on landowner's land in amounts and in a manner authorized by (VPA) (VPDES) permit number _____ which is held by the Permittee.

Landowner acknowledges that the appropriate application of biosolids will be beneficial in providing fertilizer and soil conditioning to the property and consents to the application of biosolids on his property. Moreover, landowner acknowledges having been expressly advised that, in order to protect public health:

1. Public access to landowner's land upon which biosolids have been applied should be controlled for at least 30 days following any application of biosolids and no biosolids amended soil shall be excavated or removed from the site during this same period of time unless adequate provisions are made to prevent public exposure to soil, dusts or aerosols;
2. Food crops with harvested parts that touch the biosolids/soil mixture and are totally above the land surface shall not be harvested for 14 months after the application of biosolids. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after the application of biosolids when the biosolids remain on the land surface for a time period of four (4) or more months prior to incorporation into the soil, or 38 months when the biosolids remain on the land surface for a time period of less than four (4) months prior to incorporation. Other food crops, feed crops and fiber crops shall not be harvested for 30 days after the application of biosolids;
3. Following biosolids application to pasture or hayland sites, meat producing livestock should not be grazed or fed chopped foliage for 30 days and lactating dairy animals should be similarly restricted for a minimum of 60 days. Other animals should be restricted from grazing for 30 days;
4. Supplemental commercial fertilizer or manure applications should be coordinated with the biosolids applications such that the total crop needs for nutrients are not exceeded as identified in the nutrient management plan developed by a person certified in accordance with §10.1-104.2 of the Code of Virginia to be supplied to the landowner by the permittee at the time of application of biosolids to a specific permitted site;
5. Tobacco, because it has been shown to accumulate cadmium, should not be grown on landowner's land for three years following the application of biosolids borne cadmium equal to or exceeding 0.45 pounds/acre (0.5 kilograms/hectare);
6. Turf grown on land where biosolids are applied shall not be harvested for one year after application of biosolids when the harvested turf is placed on either land with a high potential for public exposure or a lawn, unless otherwise specified by the permitting authority.

The landowner agrees to allow county officials access to the area of the property permitted for biosolids, whenever necessary, to complete site inspections related to the scheduled biosolids program.

Permittee agrees to notify landowner or landowner designee of the proposed schedule for biosolids application and specifically prior to any particular application to landowner's land. This agreement may be terminated by either party upon written notice to the address specified below.

Landowner Signature:

John W Hawthorne

Farm Operator Signature:

(SAME)

Permittee:

Recyc Systems, Inc.

Mailing Address:

PO Box 129
DUNDAS, VA 22938

Mailing Address:

Mailing Address:

P.O. Box 562
Remington Virginia 22734
(540) 547-3300

John W. Hawthorne Site

[illegible]

RECYC SYSTEMS, INC

FIELD DATA SHEET

Field Identification	Gross Acres	Environmentally Sensitive Soils				Hydro Map	Tax Map #	FSA Tract #
		Water Table	Bed Rock/Shallow	Surf/Leach	Freq Flood			
LUJWH 1	17.8	-	-	-	-	CU07	TM38,P37	6223
LUJWH 2	20.2	24B	-	-	-	CU07	TM38,P37	6,223
LUJWH 3	13.5	-	-	-	-	CU07	TM38,P37	6223
TOTAL ACRES IN SITE	51.5							

REPORT NUMBER

R084-079

A&L EASTERN AGRICULTURAL LABORATORIES, INC.

7621 Whitepine Road • Richmond, Virginia 23237 • (804) 743-9401

Fax No. (804) 271-6446

EMAIL



ACCT # 70594

SEND
TO: RECYC SYSTEMS INCGROWER: JOHN HAWTHORNE
LUNENBURGSAMPLES
SUBMITTED
BY:

HARRISON MOODY

POB 562
REMINGTON VA 22734DATE RECEIVED 03/22/2002
DATE OF ANALYSIS 03/25/2002

DATE OF REPORT 03/26/2002

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SOIL ANALYSIS REPORT

SAMPLE NUMBER	LAB NUMBER	ORGANIC MATTER	PHOSPHORUS		POTASSIUM	MAGNESIUM	CALCIUM	SODIUM	pH		ACIDITY	C.E.C.
		% ENR lbs./A	BRAY P1 ppm RATE	BRAY P2 ppm RATE	K ppm RATE	MG ppm RATE	CA ppm RATE	NA ppm RATE	SOIL pH	BUFFER INDEX	H meq/100g	meq/100g
JWH-1	17594	3.9 12123VH	72 VH	84 VH	98 VH	76 H	440 M		6.2	6.89	0.4	3.5
JWH-2	17595	2.8 10101H	86 VH	101 VH	92 VH	49 M	500 H		6.4	6.90	0.3	3.5
JWH-3	17596	3.0 10303M	38 H	49 H	136 VH	117 VH	520 M		6.0	6.86	0.7	4.6

SAMPLE NUMBER	PERCENT BASE SATURATION					NITRATE	SULFUR	ZINC	MANGANESE	IRON	COPPER	BORON	SOLUBLE SALTS	CHLORIDE	MOLYB- DENUM MO
	K	Mg	Ca	Na	H	NO ₃ -N	SO ₄ -S	ZN	MN	FE	CU	B	ms/cm RATE	CL	ppm RATE
	%	%	%	%	%	ppm RATE	ppm RATE	ppm RATE	ppm RATE	ppm RATE	ppm RATE	ppm RATE			
JWH-1	7.2	18.0	62.7		12.1										
JWH-2	6.8	11.8	72.4		8.9										
JWH-3	7.5	21.0	56.1		15.4										

Values on this report represent the plant available nutrients in the soil.

Explanation of symbols: Values are expressed as % (percent), ppm (parts per million), or lbs/A (pounds per acre).

Rating after each value: VL (Very Low), L (Low), M (Medium), H (High), VH (Very High).

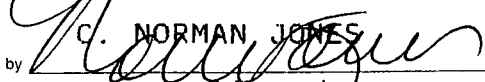
ENR – Estimated Nitrogen Release. C.E.C. – Cation Exchange Capacity.

To convert to lbs/A, multiply the results in ppm by 2.

See the back of this report for conversion factors and more detailed information.

This report applies to the sample(s) tested. Samples are retained a maximum of thirty days after testing. Soil Analysis prepared by:

A & L EASTERN AGRICULTURAL LABORATORIES, INC.

by 
C. Norman Jones

THE PLANNER IS NOT STATE CERTIFIED

Nutrient Management Plan Balance Sheet
(Summer, 2009-Winter, 2010)
John W. Hawthorne
Planner: Recyc Systems, Inc.

Tract: 6223 Location: Lunenburg
(N = N based, 1P = P based, 1.5P = P based at 1.5 removal, 0P = No P allowed)

Field CFSA No. /Name	Size (ac) Total/ Used	Yr.	Crop	Needs N-P-K (lbs/ac)	Leg /Man Resid	Manure/Biosld Rate & Type (season)	IT (d)	Man/Bios N-P-K (lbs/ac)	Net = Needs - appld N-P-K (lbs/ac)	Sum P rem cred	Commercial N-P-K (lbs/ac)	Notes	
3, 5/LUJWH01(N)	18/18	2009	Grass Pasture	50-0-40	0/0				50-0-40	N/A			
		2010	50-0-40	0/0				50-0-80	N/A			
1/LUJWH02(1P)	20/20	2009	Orchardgrass hay mt.	70-0-95	0/0				70-0-95	19			
		2010	70-0-95	0/0				70-0-190	37			
6/LUJWH03(N)	14/14	2009	Orchardgrass hay mt.	70-40-70	0/0				70-40-70	N/A			
		2010	70-40-70	0/0				70-80-140	N/A			

Commercial Application Methods:
br - Broadcast ba - Banded sd - Sidedress

Notes:

THE PLANNER IS NOT STATE CERTIFIED

John W. Hawthorne Narrative

The John W. Hawthorne Farm is located in Lunenburg County. The farm consists of pasture and hayland for their cow calf operation.

This partial plan is written for the purpose of obtaining a biosolids permit. Biosolids application has not been shown since it is uncertain when a permit will be obtained. The partial plan will be revised prior to biosolids application to obtain a target biosolids application rate.

Soil Test Summary

Tract	Field	Acre	Date	P2O5	K2O	Lab	Soil pH	Lime Date	rec. lime tons/Ac
6223	LUJWH01	18	2002-Sp	H+ (72 P ppm)	M (98 K ppm)	A&L (Weak Bray)	6.2		
6223	LUJWH02	20	2002-Sp	VH (86 P ppm)	M (92 K ppm)	A&L (Weak Bray)	6.4		
6223	LUJWH03	14	2002-Sp	H- (38 P ppm)	H- (136 K ppm)	A&L (Weak Bray)	6.		

Field Productivities for Major Crops

Tract Name	Tract/ Field	Field Name	Acres	Predominant Soil Series	Corn	Small Grain	Alfalfa	Grass Hay	Environmental Warnings
6223	6223/3, 5	LUJWH01	18	Caroline	IVa	II	Not Suited	IV	
	6223/1	LUJWH02	20	Caroline	IVa	II	Not Suited	IV	
	6223/6	LUJWH03	14	Appling	IVb	IV	III	IV	

Yield Range

Field Productivity Group	Corn Grain Bu/Acre	Barley/Intensive Wheat Bu/Acre	Std. Wheat Bu/Acre	Alfalfa Tons/Acre	Grass/Hay Tons/Acre
I	>170	>80	>64	>6	>4.0
II	150-170	70-80	56-64	4-6	3.5-4.0
III	130-150	60-70	48-56	<4	3.0-3.5
IV	100-130	50-60	40-48	NA	<3.0
V	<100	<50	<40	NA	NA

Farm Summary Report

Plan: New Plan Summer, 2009 - Winter, 2010

Farm Name: John W. Hawthorne

Location: Lunenburg

Specialist: Recyc Systems, Inc.

Tract Name: 6223

FSA Number: 6223

Location: Lunenburg

Field Name: LUJWH01

Total Acres: 17.80 **Usable Acres:** 17.80

FSA Number: 3, 5

Tract: 6223

Location: Lunenburg

Slope Class: B **Hydrologic Group:** C

Riparian buffer width: 0 ft

Distance to stream: 0 ft

Conservation Practices:

Pasture (>75% cover)

P-Index Summary

N-based

Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

Soil Test Results:

DATE	PH	P	K	Lab
Sp-2002	6.2	H+(72 P ppm)	M(98 K ppm)	A&L (Weak Bray)

Field Warnings:

Field Name: LUJWH02

Total Acres: 20.20 **Usable Acres:** 20.20

FSA Number: 1
Tract: 6223
Location: Lunenburg
Slope Class: B Hydrologic Group: C

Riparian buffer width: 0 ft
Distance to stream: 0 ft

Conservation Practices:

Pasture (>75% cover)

P-Index Summary

P-based(1.0)

Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

Soil Test Results:

DATE	PH	P	K	Lab
Sp-2002	6.4	VH(86 P ppm)	M(92 K ppm)	A&L (Weak Bray)

Field Warnings:

Field Name: LUJWH03

Total Acres: 13.50 Usable Acres: 13.50

FSA Number: 6

Tract: 6223

Location: Lunenburg

Slope Class: B Hydrologic Group: B

Riparian buffer width: 0 ft
Distance to stream: 0 ft

Conservation Practices:

Pasture (>75% cover)

P-Index Summary

N-based

Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

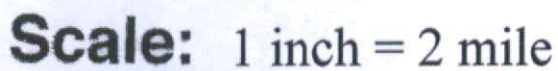
Soil Test Results:

DATE	PH	P	K	Lab
Sp-2002	6.0	H-(38 P ppm)	H-(136 K ppm)	A&L (Weak Bray)

Field Warnings:

MAPS

(Biosolids Land Application)



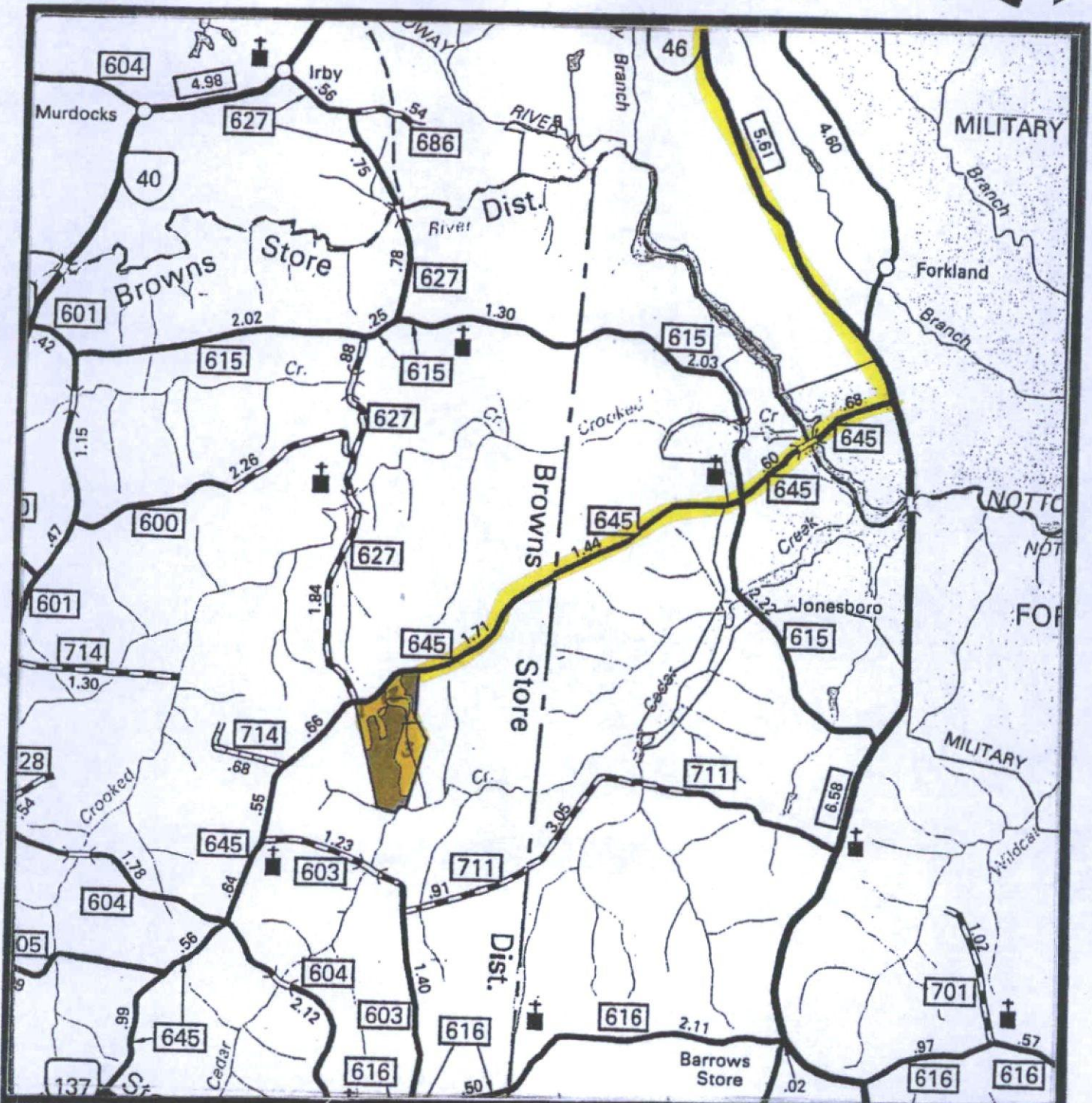
LUJWH 1-3

VICINITY MAP



Recyc SystemsTM Inc.

(Biosolids Land Application)



Scale: 1 inch = 1 mile

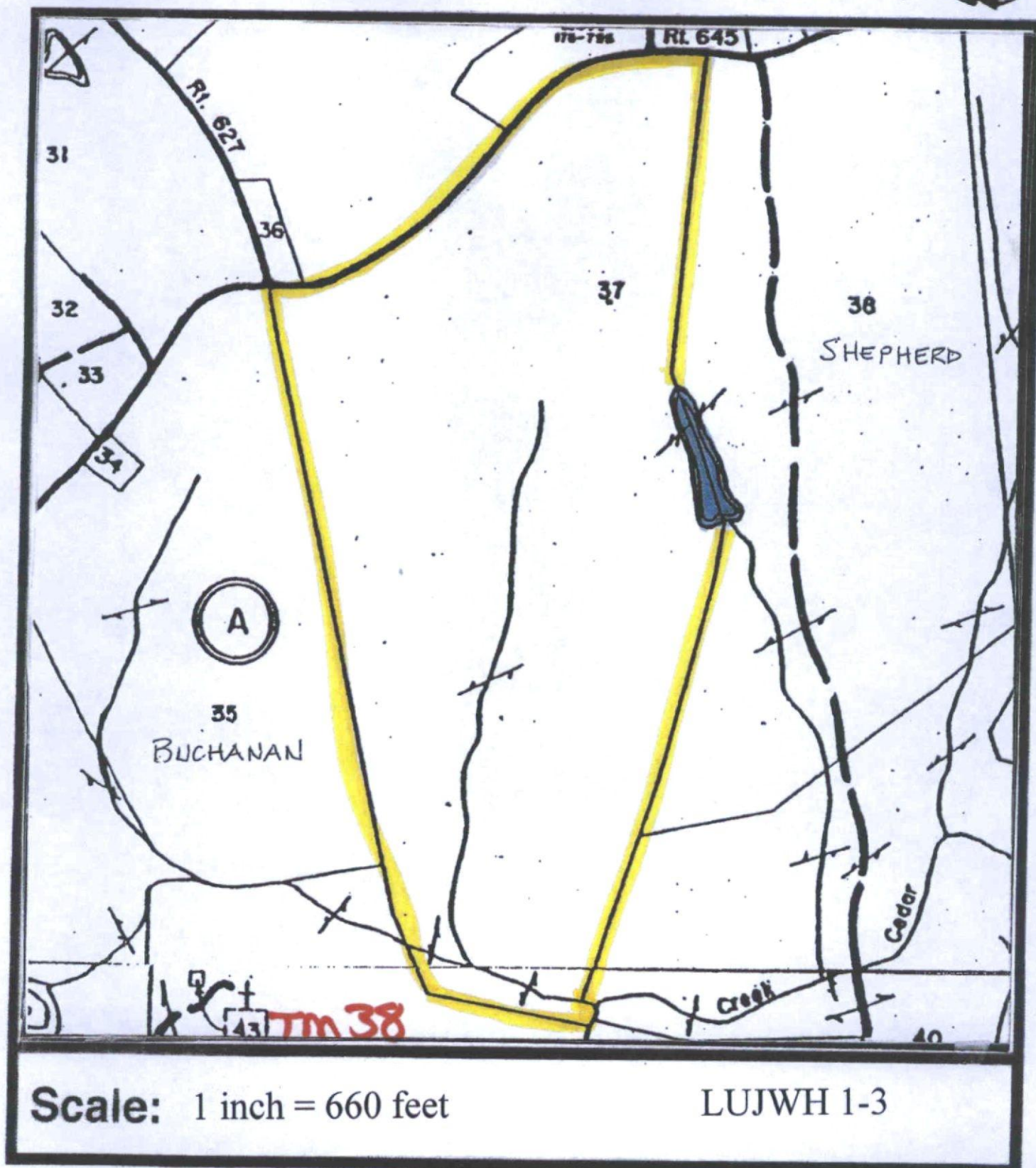
LUJWH 1-3

VICINITY MAP



Recyc SystemsTM Inc.

(Biosolids Land Application)



TAX MAP

ADJOINING LANDOWNERS

John W. Hawthorne Site

LUNENBURG COUNTY

Tax Map No.	Parcel No.	Owner(s) Name
38	25	Vincent D. Hancock or Janice Quinn
38	25A	W.L. Cheeley, Jr
38	27	Wesley Loyd Cheeley, Jr etal
38	35	Lomanda B. Radcliff
38	36	Dennis W. Cheeley
38	37A	James M. Patterson
38	38	Edrie Q. or Andrew Q. Shepherd
50	42	John S. Gee trustee



Scale: 1 inch = 660 feet

LUIWH 1-3

SOIL MAP



Recyc SystemsTM Inc.

(Biosolids Land Application)



Farm No. 6754
Tract No. 6223

Brunswick

Farm Serv


Scale: 1 inch = 660 feet

LUJWH 1-3

AERIAL MAP



Legend for Site Plan

	House and Well
 	Well / Spring
 	Perennial Streams & Surface
	Wet Spot
	Intermittent Stream / Drainage
	Trees and Woods
	Private Drive
	Rock / Rocky Area
	Sinkhole
	Severely Eroded Spot
	State Road
  }	Field Boundary / Fence
	Property Line
	Slope
	Frequent Flooded Soil



Scale: 1 inch = 660 feet

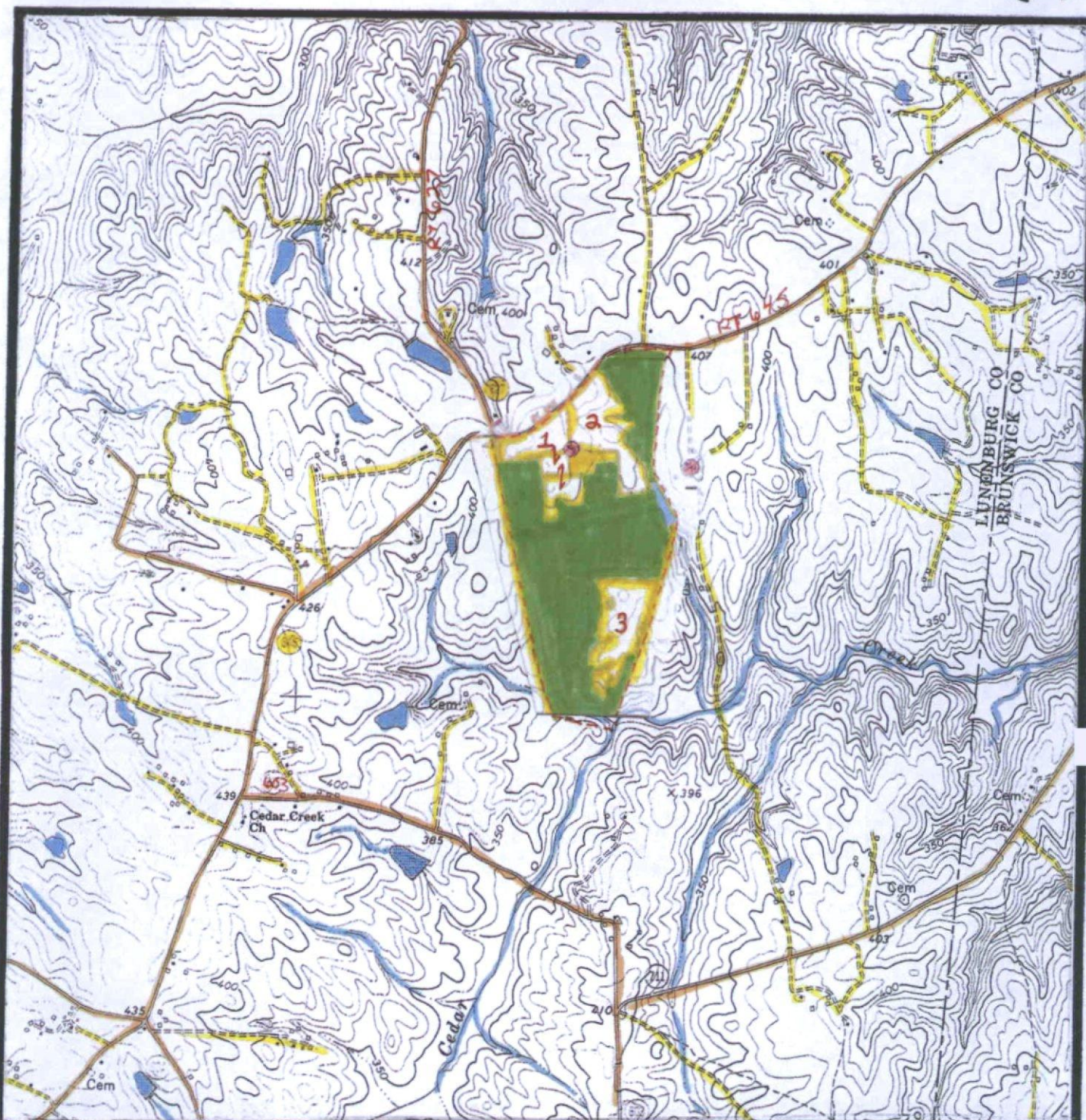
LUJWH 1-3

SITE PLAN



Recyc SystemsTM Inc.

(Biosolids Land Application)



Scale: 1 inch = 2,000 feet

LUJWH 1-3

TOPOGRAPHIC MAP

